DOCUMENT RESUME

ED 316 825 CG 022 378

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TITLE AIDS Education Project 1988-89. Evaluation Section Report.
INSTITUTION New York City Board of Education, Brooklyn, NY. Office of Research, Evaluation, and Assessment.
PUB DATE Feb 90
NOTE 45p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Acquired Immune Deficiency Syndrome; Boards of Education; Curriculum Development; Curriculum Evaluation; *Elementary Secondary Education; *Health Education; *Program Effectiveness; *Program Evaluation
IDENTIFIERS New York City Board of Education

ABSTRACT

The Acquired Immune Deficiency Syndrome (AIDS) education project implemented by the New York City Board of Education emphasized the delivery of services including parent workshops, staff training and support activities, and curriculum development. An evaluation of the project indicated that: (1) the Advisory Council met and was active in shaping the curriculum; (2) a needs-based staff training program was offered to teachers; (3) no significant difference in knowledge about AIDS between pre- and post-tests of junior high school students; (4) an AIDS curriculum continued to be developed for grades kindergarten through 6 with another curriculum instituted for grades 7 through 12; (5) there was a large increase in the number of students who were receiving AIDS education; (6) a centralized AIDS resource and instructional materials center was being established, and a newsletter is planned; and (7) parent training was instituted. Recommendations were made to continue regular meetings of the AIDS advisory council, to continue parent training in AIDS education, to continue and expand training for Board of Education staff, to complete the development of the AIDS resource center, to expand baseline date on students' knowledge and attitudes, and to conduct follow-up surveys to collect more data on numbers of students receiving AIDS education. (ABL)

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EVALUATION SECTION
John Schoener, Chief Administrator
February 1990

EVALUATION SECTION REPORT

AIDS EDUCATION PROJECT
1988-89

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EVALUATION SUMMARY

BACKGROUND

In August 1985, the Chancellor of the New York City Board of Education (B.O.E.) formed a task force to address the issue of AIDS. The task force recommended that: all Board of Education staff receive instruction about AIDS; curriculum be developed for junior high and high school students; staff training be implemented; and a video appropriate for junior and senior high school classroom instruction be developed.

The B.O.E.'s initial preventive efforts focused on media, curriculum, and staff development training for middle and senior high school health and Family Living/Sex Education programs. Since a high percentage of urban adolescents experiment with sex and drugs, it is important to reach these young people as soon as possible.

The B.O.E. began implementing AIDS education in spring 1986, following curriculum development and staff training. In October 1987, the Office of Health, Physical Education, and School Sports (O.H.P.E.S.S.) received funding from the Centers for Disease Control (C.D.C.) to expand its AIDS Education efforts. This was followed by a grant from the State Education Department.

POPULATION SERVED

During the 1988-89 school year, the program emphasized the delivery of services including parent workshops, staff training and support activities, and curriculum development. Large scale training sessions on dealing with the AIDS topic in the classroom were held for high school teachers and districtwide training sessions were held for teachers of kindergarten through ninth grade. In all, over 4,000 teachers received training during the year. This training was supported by the development of curriculum materials to provide teachers with specific lessons and classroom strategies, and the establishment of a B.O.E. AIDS resource center to help with the analysis and dissemination of important information. To support parent education about AIDS in the community the program began implementing parent training, with about 3,000 parents receiving training. The program also trained staff and youth who work in community-based programs such as United Neighborhood Houses (U.N.H.).* The B.O.E. worked with

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*United Neighborhood Houses is an umbrella organization for approximately 32 settlement houses throughout New York City. These settlement houses serve members of the community ranging from prekindergartners to senior citizens. The houses provide a range of services including social services, psychological counseling, youth employment, after school classes, and headstart.

community-based agencies in high H.I.V.-prevalent communities in two ways: by providing technical assistance and materials, and by conducting seven workshops for youth at settlement houses.

PROGRAM OBJECTIVES

There were three major program objectives: to increase the number of schools offering AIDS education and the number of professionals providing education to out-of-school youth; to increase the number of schools integrating AIDS education into their health programs; and to increase the level of AIDS-related knowledge among youths in and out of school.

EVALUATION METHODOLOGY

The evaluation of the AIDS education project was based on data from the following sources: principal survey determining the number of students receiving AIDS education, training of teachers, topics covered in classroom, and settings in which topics are taught; parent training assessments; B.O.E. staff reactions to AIDS training; pre- and post-AIDS training achievement tests for junior high school students, and pre-AIDS training achievement tests for high school students**; pre- and post-AIDS training achievement tests for U.N.H. clients; U.N.H. staff reaction to AIDS training; B.O.E. AIDS resource center assessment; curriculum review; B.O.E. staff needs assessment; interviews with central staff; and teacher responses to questions about their role in providing AIDS education.

FINDINGS

Major findings were as follows:

- The Advisory Council met and was active in shaping the curriculum, offering advice on various aspects of the program, and helping to resolve sensitive issues related to AIDS education.
- In fall 1988, a needs assessment was conducted to highlight staff concerns. The two sections concentrated on B.O.E. building-level personnel and on school health coordinators.
- Needs-based staff training program was offered to elementary, intermediate/junior high, and high school teachers and school-based support teams.

**Time constraints did not allow for posttesting of high school students.

- Among U.N.H. clients there was a significant increase in knowledge about AIDS as a result of B.O.E. training.

- There was no significant difference in knowledge about AIDS between pre- and posttests of junior high school students.

- An AIDS curriculum continued to be developed for grades kindergarten through six. Another curriculum was instituted for grades seven through twelve. The curriculum supplemented the Family Living Including Sex Education (FL/SE) curriculum component of the program.

- Data collected from principals surveys in 1988-89 shows a large increase in the number of students who are receiving AIDS education.

- A centralized AIDS resource and instructional materials center is being established, and a newsletter is planned. The development of the resource center was delayed because of space limitations.

- Parent training was instituted. The original plan devised for parent training was found to be inadequate, and this aspect of the program is now being reconceptualized.

CONCLUSIONS AND RECOMMENDATIONS

The 1988-89 goals for the AIDS Education Project have, for the most part, been met. The project has developed curricula appropriate for the different age levels, and has been training an ever-growing population of teachers about AIDS and how to incorporate AIDS education into the classroom.

The AIDS Education Project also continued to work with the outreach U.N.H. program, which enabled it to reach youth who were no longer in school, but in need of education about AIDS.

Based on the findings of this evaluation and other information contained in the report, the following recommendations are made:

- Continue regular meetings of the AIDS advisory council.

- Continue parent training in AIDS education.

- Continue and expand training for B.O.E. staff, with special emphasis continuing to be put on comprehensive health education.

- Complete the development of the AIDS resource center so that it is better able to meet the needs of educators.

- Broaden the base of teachers who receive training in the AIDS curriculum.

- Conduct an updated B.O.E. staff needs assessment regarding concerns about AIDS education.

- Expand baseline data on students' knowledge, attitudes, and behavioral intentions regarding AIDS to include elementary school students. This should be followed by a posttest after AIDS curriculum implementation for elementary, intermediate/junior high, and high school students. An attempt should be made for congruence with the baseline data collected by other institutions (e.g., the Center for Disease Control).

- Conduct follow-up surveys to collect more data on the number of students receiving AIDS education and the way AIDS education is being implemented.

- Initiate a peer education program for high school students as an additional way to reach adolescents and teach them about AIDS.

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CHAPTER I. INTRODUCTION

PROGRAM BACKGROUND

The AIDS Crisis in New York City

The New York City Department of Health's surveillance data (August 1989) reports 21,589 AIDS cases (up from 18,518 in January 1989), which constitutes 21 percent of the national total. Even this staggering number is conservative, since it is based on the strict definition of AIDS currently used by the Centers for Disease Control (C.D.C.) and does not include the full spectrum of HIV infection. As of August 1989 there were 502 "pediatric" cases of AIDS in New York City, 29 percent of the national total: a large percentage of this number is babies born with the AIDS virus. As of August 1989, the New York City Department of Health (D.O.H.) projected that by the year 1993 there will be more than 60,000 people in New York City with AIDS and tens of thousands more who are infected with HIV. This is a 150 percent projected escalation in the number of narrowly defined AIDS cases in less than four years. The D.O.H. also projects that by the year 1994 there will be 90,503 cases of AIDS in New York State.

Risks to New York City's Teenagers

Adolescence is often a period of experimentation with sex and drugs--behaviors that increase the risk of infection with AIDS. Statistics on the city's teens indicate that large numbers are at risk. Data from the Mayor's Office of Adolescent Pregnancy and Parenting Services (April 1986) show that more than

365,000 of the city's teenagers are sexually active and that each year one in five teenage girls will get pregnant. Data on sexually transmitted diseases present similar statistics. In 1988, the Department of Health reported 106,837 sexually transmitted diseases between January and December. The trend of communicable diseases has been upward in the last couple of years, with the frequency of diseases such as syphilis almost doubling between 1981 and 1988. The highest occurrence of sexually transmitted diseases usually occurs between the ages 20 and 29, just after graduation from high school. Young adults in their 20's make up 20 percent of reported AIDS cases. Considering the long incubation period of the H.I.V. virus, it is probable that in many of the reported AIDS cases, the H.I.V. virus was actually transferred during adolescence. Data from the New York City Department of Health reveal that the number of adolescents with full blown AIDS is on the rise. Statistics on drug use by city teens are not available, but the New York State Division of Substance Abuse estimates 200,000 intravenous drug users of all ages in the City.

A variety of additional circumstances put New York City youth at risk. An estimated eight to ten percent of city youth (75,000 to 90,000 public school children) engage in homosexual activity. Also, due to social and economic problems, minorities are often in a high-risk category: approximately 357,000 (38 percent) of the city's public school children are black and 315,000 (34 percent) are Hispanic. Twenty percent of all

adolescent AIDS cases are in New York City, and a large percentage of these cases are made up of minority groups.

In August 1985, the Chancellor of the New York City Board of Education (B.O.E.) formed a task force to address the issue of AIDS. The task force made the following recommendations: all B.O.E. members should receive education about AIDS; curriculum on the disease should be developed for junior high and high school students; staff training should be implemented; and a video appropriate for junior and senior high school classroom instruction should be developed.

The B.O.E.'s initial preventive efforts focused on media, curriculum, and staff-development training for middle and senior high school Health and Family Living/Sex Education (FL/SE) Programs. The B.O.E. began implementing AIDS education in the spring of 1986, following curriculum development and staff training. In October 1987, the Office of Health, Physical Education, and School Sports (O.H.P.E.S.S.) received funding from C.D.C. to expand its AIDS education efforts.

POPULATION SERVED

1985-1987

Fall 1985. All B.O.E. personnel received comprehensive AIDS information and viewed a video developed by the New York City Department of Health and the B.O.E.'s Office of Media and Telecommunication. In December, the Division of Curriculum and Instruction, Office of Health, Physical Education and School Sports, in cooperation with the Department of Health (D.O.H.),

completed the development of two lessons each for junior and senior high school students, and AIDS information was integrated into the School Program to Educate and Control Drug Abuse (S.P.E.C.D.A.) curriculum. Between September 1985 and January 1986, informational meetings about AIDS education were held with parents.

Spring 1986. In January and February, half-day training sessions were held for high school teachers and support staff regarding AIDS and the new curriculum. These were conducted cooperatively by the B.O.E. and the D.O.H. Beginning in March, all students in grades nine through twelve received two lessons on AIDS, and some high schools conducted workshops for parents. In April, all school-based drug teams received one full day of training.

Fall 1986. In November, one full-day training session on AIDS education and the new curriculum was provided for community school district intermediate and junior high school teachers and their support staff.

Spring 1987 In January, two lessons and related materials were prepared for the video "Sex, Drugs, and AIDS," developed under contract with the B.O.E. In February, the video was previewed by 35 high school seniors. In March, high school staff received training regarding the video in anticipation of its use with twelfth graders in April and May. The video "AIDS: Just Say 'No'" was completed for use with junior and senior high students.

Overall, the following staff had been trained: 1,350 high school administrators, teachers, guidance counselors and health resource coordinators; 220 members of school-based drug teams; and 150 I.S./J.H.S. personnel.

1987-1988. To reach the greatest number of students during the first year of the project, emphasis was placed on workshops for parents, staff training and support activities, and curriculum development. B.O.E. staff who work with students particularly at risk for contracting the AIDS infection--including substance abuse prevention/intervention specialists and pregnancy prevention staff were trained. Staff training was supported by the development and augmentation of curriculum material that provides teachers with specific lessons and classroom strategies.

Out-of-school youth were served through U.N.H., an umbrella organization for settlement houses throughout the city. This agency was selected because it serves both in-school and out-of-school youth with a wide variety of programs. The B.O.E. worked with U.N.H. in three ways: B.O.E. staff modeled workshop presentations for settlement house youth staff; technical assistance and teaching/counseling materials (such as videos) were provided; and B.O.E. staff conducted seven workshops for youth at settlement house sites. These workshops modeled training for youth staff and allowed the B.O.E. to collect achievement data.

1988-89. There were large-scale teacher training sessions for all involved high school teachers, and district training sessions for teachers of kindergarten through the ninth grade. Eighty teachers were invited from each district: some districts sent as few as 25 teachers, and some sent as many as 120. Altogether, approximately 4,000 teachers were trained at the district level. For high school, grades nine through twelve, there was a citywide science training session: 90 of the 125 city high schools sent teachers to the training, and one hundred and seventy-five teachers attended the training session. There was also a citywide follow-up for high school teachers who might have missed the original session. This increase in teachers trained is reflected in the large increase of the number of students receiving AIDS education in the public schools.

There were also, for the first time, parent education workshops in which approximately 3,000 parents were trained. The U.N.H. workshop was conducted during the summer, reaching approximately 270 city youth and 35 staff.

PROGRAM OBJECTIVES

There were three major objectives for this program:

- Increase the number of schools that provide effective AIDS education in elementary, junior high, and senior high schools and the number of professionals who provide effective AIDS education to out-of-school youth.
- Increase the number of schools integrating AIDS education within a more comprehensive school health program that establishes a foundation for understanding the relationship between personal behavior and health.

- Increase the level of AIDS-related knowledge and/or the availability of baseline levels of AIDS-related knowledge among youth both in and out of school.

PROGRAM EVALUATION

The evaluation conducted by the Office of Research, Evaluation, and Assessment/Instructional Support Evaluation Unit (OREA/I.S.E.U.) included the following: review of Advisory Council meetings; evaluation of B.O.E. staff training; evaluation of B.O.E. staff needs assessment; review of the AIDS curriculum for teachers; determination of whether there was an increase in the number of students receiving AIDS education; evaluation of teacher responses to selected questions regarding AIDS education in the classroom.

The evaluation of the AIDS Education Project for 1988-89 was based on a variety of data sources:

- a review of the Advisory Council's rosters and minutes;
- reactions to AIDS training by representatives from B.O.E. staff at the intermediate/junior high and high school levels;
- questions put to U.N.H. clients before and after AIDS training to assess their knowledge, attitudes, and behavioral intentions regarding AIDS;
- questions put to intermediate/junior high school students before and after AIDS training, and to high school students before AIDS training to assess their knowledge, attitudes, and behavioral intentions regarding AIDS;
- reactions to AIDS training by U.N.H. staff;
- reactions to AIDS training by B.O.E. staff;
- responses to the B.O.E. staff needs assessment;
- a review of the AIDS curriculum for teachers;

- a survey of all the elementary school, intermediate/junior high school and high school principals.

SCOPE OF THIS REPORT

This report presents the results of the evaluation of the 1988-89 AIDS education program. Chapter I describes the program background, population served, program goals and program evaluation. Chapter II reports on the status of the program implementation, and Chapter III presents findings. Conclusions and recommendations are presented in Chapter IV.

CHAPTER II. PROGRAM IMPLEMENTATION

CITYWIDE AIDS ADVISORY COUNCIL

Two Citywide AIDS Advisory Council meetings were held to discuss plans for the 1989-90 school year. The Advisory Council is comprised of 30 representatives from the United Federation of Teachers, state and local health organizations, community-based organizations, clergy, and representatives of different ethnic and racial groups.

The meetings were attended by between 6 and 15 of the 30 Advisory Council members along with B.O.E. staff involved with the AIDS Education Project. Discussions included such topics as the need to increase and specify the level of AIDS education in the public school system; methods of integrating parent training into the education program; the use of peer education in terms of "high-risk" student populations; and innovative techniques such as the puppet theater in educating younger students about the AIDS problem. The Advisory Committee also provided assistance in the preparation of special projects, such as Teacher Guidelines.

Parent Education

The workshops took place in the fall of 1988 and the spring of 1989, with the majority of parents being educated in the fall. Some of the parent trainings took place during districtwide workshops with other educators, and some consisted almost completely of parents. Topics covered included current AIDS information and sessions on "The Kids on the Block," a puppet

workshop on AIDS for young children.

By the end of the parent workshop period in September 1989, 3,305 parents of in-school and out-of-school youth had participated in three to six hours of workshop activities on AIDS. The training sessions were conducted by B.O.E. specialists and project-trained parent workshop leaders.

The parent leadership program has evolved into a design which permits us to involve parents from many schools in all community school districts. The current design involves parents of kindergarten through grade twelve and special education students in a 35 hour stipended training which will result in their leading and/or co-leading workshops with other parents.

B.O.E. Staff Training

Fall 1988. In November 1988 O.H.P.E.S.S. conducted citywide all-day AIDS education for high school teachers. Teachers of kindergarten through ninth grade were offered districtwide training sessions which took place between late fall 1988 and spring 1989.

UNITED NEIGHBORHOOD HOUSES (U.N.H.)

Staff development workshops for U.N.H. youths began in June 1988 and were continued through the summer of 1989. Seven workshops were held during summer 1989, and a total of 276 youths participated.

Before taking part in a workshop, a sample of 49 U.N.H. youths were given a pretest measuring knowledge, attitudes, and behavioral intentions regarding AIDS. A sample of 82 youths took

a posttest after participating in the workshop. The analyses of the pretest and posttest are presented in Chapter III.

B.O.E. AIDS RESOURCE CENTER

The AIDS resource center was to be established in order to lend support and materials to B.O.E. personnel involved in AIDS education. Print journals, audiovisual material, and other educational material would be made available through the resource center.

Although the completion of the center has been problematic due to space considerations, a resource center is being established. The center has been equipped with a computer and modem and is in the process of acquiring and reviewing AIDS materials for on-site use and dissemination. A newsletter that will be distributed to all teachers is planned, and the resource center will publicize its existence and make B.O.E. employees aware of its support services.

When fully functional, the resource center will serve a number of purposes. As an ongoing extension of the AIDS education project for B.O.E. personnel and the community, resource center staff will be able to review and disseminate information to health coordinators and other educators involved in AIDS education. This information will act as an ongoing update and supplement to the expanded AIDS curriculum already in place. This is especially important with a new and volatile topic like AIDS, where new knowledge comes to the fore on an almost daily basis. In the Staff Needs Assessment questionnaire

for 1988-89, 67 percent of the health coordinators surveyed felt they still needed assistance in designing a curriculum implementation plan: a well-developed resource center might go a long way in fulfilling this need. The resource center could also serve as a direct link between B.O.E. educators and the AIDS Advisory Council, establishing a lasting, ongoing relationship between schools and community to address the AIDS problem.

The resource center may also act as a staff and community support system. The newsletter will keep educators informed and help them to feel less isolated as they attempt to deal with a difficult and controversial subject.

AIDS CURRICULUM DEVELOPMENT

The New York State AIDS curriculum for grades kindergarten through twelve was used in expanding the Family Living/Sex Education AIDS Supplement. Certain topics or aims were encouraged through the use of the curriculum. These included: How can we protect ourselves from AIDS? How can we deal with the fears about AIDS? How does H.I.V. infect the body? What role can each person take in preventing the spread of H.I.V. infections? How to cope with peer pressure? What can families and the community do to help people with AIDS? and What are some of the human rights issues raised by AIDS?

B.O.E. STAFF NEEDS ASSESSMENT

In order to create staff development programs that specifically address the needs of B.O.E. staff, needs assessment questionnaires have been distributed to those involved in AIDS

education over the last two years. The questionnaires have assessed such areas of staff concern as AIDS transmission, prevention of drug use, and identification of community resources.

The 1988-89 Needs Assessment Questionnaire was distributed to two groups. Questionnaire A was sent to all building personnel, such as principals, assistant principals, and teachers. Questionnaire B was sent only to district health and physical education supervisors/coordinators.

STUDENT BASELINE DATA

There were two sources for baseline data on AIDS-related knowledge, attitudes, and behavioral intentions. Data were available through the Center for Disease Control, United States Department of Health and Human Services. The Center developed a questionnaire for anonymous self-administration. Sampling strategies were designed to obtain a representative sample of students among the different sites, New York City among them.

OREA also collected baseline data locally. In order to obtain baseline data directly from the students, OREA designed a pre- and post-test was to try and determine the knowledge level and behavioral intentions of junior high school and high school students in terms of AIDS and "at risk" behavior. The pretest was administered to a random sample of 379 intermediate/junior high school students (with a reliability coefficient of .58*) and

*An Alpha reliability measurement to test homogeneity and consistency was used.

208 high school students (with a reliability coefficient of .74) before participation in B.O.E. AIDS education classes. The same test was administered as a posttest to only 261 of the intermediate/junior high school population after participation in AIDS education. Time constraints did not allow for posttesting of high school students. The test was made up of four questions establishing relevant identification information and 20 true/false/not sure questions for intermediate/junior high school students. The test for high school students was exactly the same, except for six additional questions that reflected the content of the high school AIDS curriculum.

INCREASE IN NUMBER OF STUDENTS RECEIVING AIDS INSTRUCTION

One of the goals of this year's evaluation was to determine the amount of AIDS education provided by trained teachers, and whether this instruction was integrated into health classes. As stated earlier, there were district training sessions for kindergarten through ninth grade in which approximately 4,000 teachers were reached; and there was a citywide training session for high school science teachers in which 175 teachers were reached.

In order to determine the number of students receiving classroom education from trained teachers for the 1987-88 school year, individual questionnaires were sent to the teachers who participated in the training. For the 1988-89 school year, principal surveys were used to determine the number of students receiving AIDS education. This had certain advantages over the

individual questionnaires. Many teachers had not returned the questionnaires, and there also may have been teachers who taught AIDS classes without having attended the training. The principal surveys were able to give a much clearer picture about what was actually occurring in the schools in terms of AIDS education.

Methodology of Principal Surveys

Questionnaires developed by OREA were sent out to principals citywide asking them to describe the AIDS education program in their schools. The questionnaires were the same for elementary, intermediate/junior high, and high school principals. Nine hundred and forty-six questionnaires were mailed out in late May of 1989. The principals were asked to respond candidly and assured that their answers would remain confidential. They were requested to return the completed questionnaires by June 23, 1989. A total of 421 questionnaires were returned. This was considered to be a high response rate since time did not permit for follow-up phone calls.

The questionnaire was designed to determine the number of students participating in AIDS education in each school, the degree of training to which AIDS education teachers had been exposed, the settings in which AIDS education was taught, the curricula used, and the topics covered. Principals were specifically asked whether their schools provided AIDS education for students, which teacher(s) taught the AIDS education classes, and where those teacher(s) had received training for AIDS education. The principals were also asked to list the number of

students enrolled in Health Education classes and the number of students actually receiving AIDS education. In the final section of the questionnaire, the principals were presented with general settings, curricula, and topics, and asked to identify those appropriate to AIDS education in their schools. They were also given space to include any settings, curricula and/or, topics that were not included in the questionnaire.

CHAPTER III. FINDINGS

STAFF TRAINING EVALUATIONS

Evaluations of the staff development workshops that took place during the 1988-89 school year were made by those who took part in the workshops. Participants included administrators, health educators, elementary and secondary school teachers, special education teachers, pupil personnel staff, parents, and school board members. In an eight-item survey, participants were asked to judge the training in terms of purpose, their ability to use what was learned in the classroom, and the ways in which the workshop sessions addressed their specific needs and concerns. A high proportion of participants agreed that the training helped in all categories, with the most agreeing on purpose and the meeting of specific needs (see Table 1).

UNITED NEIGHBORHOOD HOUSES

A twelve-item questionnaire designed to assess U.N.H. youths' knowledge of, attitudes toward, and behavioral intentions regarding AIDS was administered to a sample of 131 youths at two U.N.H. sites: Grovesnor and Bronx River Neighborhood Center.

The pretest and the posttest were administered to two separate populations. The twelve-item questionnaire was

TABLE 1

Evaluation of AIDS Education Workshops: 1988-89
(N = 1236)

The conference:	Agree %	Disagree %	Uncertain %	N/A %
Was clear in purpose	97.1%	0.2%	2.7%	0.1%
Helped me to include and integrate AIDS instruction within health education	76.3	1.2	16.7	5.8
Suggested strategies for AIDS education in the classroom	77.7	2.8	12.7	6.8
Helped me in helping students acquire knowledge essential to the prevention of H.I.V. infection	83.4	1.2	11.4	4.0
Helped me in understanding how to help students deal with behavioral choices related to AIDS	80.3	1.5	14.2	4.1
The training was supportive to raise sensitive issues regarding AIDS	95.2	1.4	3.2	0.2
I had the opportunity to address my concerns related to AIDS education	92.8	1.9	3.8	1.6
The training was helpful	94.3	1.1	4.4	0.2

- The training was helpful to a majority of participants. It was most effective in statement of purpose and addressing educators' personal concerns.

administered as a pretest to a group of 49 youths before they participated in any type of AIDS training; the same questionnaire was administered as a posttest to another group of 82 youths after they had attended an AIDS education workshop. An unmatched *t*-test was used to determine if the scores achieved on the pretest and the posttest were significantly different (see Table 2). The results show that there was a significant difference in scores between those youths who had participated in the AIDS education workshop and those who had not. This suggests that the AIDS education workshop given to U.N.H. youth had a positive influence with regard to knowledge and attitudes.

Staff Needs Assessment

The 1988-1989 Needs Assessment Questionnaire was distributed to two groups. Questionnaire A was sent to all building personnel, such as principals, assistant principals, and teachers. Questionnaire B was sent only to district health and physical education supervisors/coordinators.

Seventy-three percent of the responding health and physical education supervisors and 63 percent of the responding building personnel reported that district staff members had attended AIDS staff development. The amount of assistance needed in curriculum development and identifying community resources remained relatively stable in comparison with the 1987-1988 findings. The perceived need for additional staff training rose considerably,

TABLE 2

United Neighborhood Houses Youth
Assessment of Knowledge and Attitudes about AIDS Before and After an AIDS Education Workshop

	Number of Cases	Mean	S.D.	Mean Difference
Pretest	49	7.5	1.7	
Posttest	82	8.5	1.9	1.0[a]

[a]This gain was statistically significant at $p \leq .005$

- U.N.H. youth demonstrated statistically significant gains in knowledge, attitudes, and behavioral intentions with regard to AIDS after the staff development workshop.

from 69 percent to 81 percent for Questionnaire A respondents, and to 94 percent for Questionnaire B respondents. A question in the 1988 questionnaire that had not been included in the 1987 survey asked whether respondents felt there was a need to provide parent education. Eighty-two percent of the Questionnaire A respondents and 88 percent of the Questionnaire B respondents answered yes.

According to both Questionnaires A and B, an overwhelming proportion of the respondents indicated interest/need in all areas specified on the survey (see Tables 3 and 4).

INCREASE IN NUMBER OF STUDENTS RECEIVING AIDS INSTRUCTION

The data listed below represent the response of principals of 189 elementary schools, 46 intermediate/junior high schools and 98 high schools (see Table 5). There were also 88 respondents who could not easily be fitted into one of these categories (i.e., 46 combined elementary and junior high school responses, 23 combined junior high and high school responses, and 19 responses combined all grade levels).

Overall

The number of students who reportedly received AIDS education in 1988-89 showed a dramatic increase over the students reported to have received AIDS education during the 1987-88 school year. The numbers ranged from a low of 11,769 kindergarteners, or 65.4 percent of the total kindergarten

TABLE 3

Needs Assessment in AIDS Education: Fall 1988

Questionnaire A: Building-level Personnel

Staff Needs	N	Yes %	No %
Additional staff training	254	81%	19%
Assistance in designing a curriculum implementation plan	250	66	34
Identify community resources	251	74	26
Need to provide parent education	251	82	18
Staff is particularly concerned about being trained on issues related to:			
a.) AIDS transmission & prevention	187	85	15
b.) Staff attitudes and values	187	82	18
c.) Cultural concerns about AIDS	183	86	14
d.) Motivational strategy for reducing risk	181	87	13
e.) Communication about sexuality	173	86	14
f.) Drug use and AIDS	171	82	18
g.) Gay youth concerns	144	69	31
h.) Legal and civil rights issues	174	80	20

- More than 80 percent of the respondents thought additional staff training was an important need.

TABLE 4

Needs Assessment in AIDS Education: Fall 1988

Questionnaire B:
Health and Physical Education Supervisor/Coordinator

Staff Needs	N	Yes %	No %
Additional staff training	16	94%	6%
Assistance in designing a curriculum implementation plan	15	67	33
Identify community resources	15	60	40
Need to provide parent education	16	88	12
Staff is particularly concerned about being trained on issues related to:			
a.) AIDS transmission & prevention	13	100	0
b.) Staff attitudes and values	14	93	7
c.) Cultural concerns about AIDS	13	92	8
d.) Motivational strategy for reducing risk	13	85	15
e.) Communicating about sexuality	13	92	8
f.) Drug use and AIDS	14	86	14
g.) Gay youth concerns	13	85	15
h.) Legal and civil rights issues	14	93	7

- Almost 95 percent of health educators felt additional staff training was important.

TABLE 5

Overall Percentage[a] of Students Receiving AIDS Education

Grade	Percentage of Students Receiving AIDS Education	Total Number of Schools
Kindergarten	65.4%	175
1	63.7	178
2	67.9	180
3	66.7	183
4	72.9	192
5	81.9	206
6	81.1	184
7	77.4	95
8	92.0	133
9	81.0	123
10	81.3	88
11	85.7	98
12	82.2	91

[a] As reported by 421 of 946 principals

- Over four-fifths of the students in grades eight through twelve were receiving AIDS education.

population from 175 reporting schools, to 35,102 eighth graders, or 92 percent of the eighth grade population from 133 reporting schools (see Table 5).

Most students received their AIDS education in health class, with 62.3 percent of the principals reporting that AIDS education was taught during the health class period. The second largest percentage of the population, 31.5 percent, received AIDS education in science class. AIDS education was also integrated into FL/SE classes, physical education classes, and a number of other classes and school activities (see Table 6).

High Schools

High school principals responded positively for all settings listed on the survey. Ninety-five percent of the principals responding to the survey reported that AIDS education was being integrated into health classes. The second most common response for setting, among high schools, was physical education classes (47 percent). The third most common was science classes (44 percent) and the fourth was the "other," which includes settings such as School Prevention of Addiction through Rehabilitation and Knowledge (S.P.A.R.K.), and regular classes such as English and math.

Intermediate/Junior High Schools

Intermediate and junior high schools responding showed an even greater integration of AIDS education into their health classes, with 95.7 percent of the schools responding that they taught AIDS education in their health education. Last year, health education classes accounted for the largest single group

TABLE 6
Settings in which AIDS Education is being Provided

Setting Reported	Elem[a]	JHS	HS	Elem &JHS (k-8)	JHS &HS (7-12)	Elem JHS &HS[b]
Health Class						
# schools	64	44	93	30	22	13
% respondents	33.9	95.7	94.9	65.2	95.7	68.4
Physical Ed.						
# schools	22	3	46	6	7	4
% respondents	11.6	6.5	46.9	13.0	30.4	21.1
FL/SE						
# schools	64	7	5	12	5	3
% respondents	33.9	15.2	5.1	26.1	21.7	15.8
Science Class						
# schools	35	9	43	23	12	11
% respondents	18.9	19.6	43.9	50.0	52.2	57.9
Home Economics						
# schools	0	3	4	1	1	4
% respondents	0	6.5	4.1	2.2	4.3	21.1
Social Studies						
# schools	4	1	22	4	3	4
% respondents	2.1	2.2	22.4	8.7	13.0	21.1
All School Assembly						
# schools	5	1	8	3	1	5
% respondents	2.6	2.2	8.2	6.5	4.3	26.3
Grade Level Assembly						
# schools	22	3	10	5	4	3
% respondents	11.6	6.5	10.2	10.9	17.4	15.8
Other						
# schools	70	1	26	5	4	3
% respondents	37.0	2.2	26.5	10.9	17.4	15.8

[a]The elementary education AIDS program is sometimes taught by a content specialist, i.e., FL/SE cluster teacher. More often it is taught by the early childhood/common branch classroom teacher as part of the total instructional program.

[b]Schools in which principals reported they had elementary, junior high, and high school students.

- AIDS education was integrated into over 90 percent of classes for junior high and high school, but into only 34 percent of classes for elementary.

of students receiving AIDS education. Health classes dominated AIDS education at the I.S./J.H.S. level more than at any other grade levels, with the next most common setting in which AIDS education was administered being science classes (19.6 percent). There seemed to be less variation in teaching setting at this level: the response "other" comprised only 2.2 percent of all schools.

Elementary

Elementary schools showed the greatest degree of variation in settings, with the largest percentage of principal responses being "other." From a random sampling, it was determined that in most cases (56 percent), "other" simply meant that AIDS education was integrated into the regular classroom (see Table 6). The second most common response was either into health classes or Family Living/Sex Education (34 percent each).

AIDS CURRICULUM DEVELOPMENT

According to the principal survey, the topic that received the most attention in the classroom was the general topic, What is AIDS?, with 98.3 percent of the respondents saying that this was covered during AIDS education. The second most common topic was How is AIDS Transmitted? (90.9 percent), followed by Fears/Myths (90.0 percent) (see Table 7). Of course, the depth and amount of information given varied directly with the grade level. A breakdown by grade level shows that while the topic What is AIDS? is covered through all grades (94.4% in elementary, 97.8 percent in intermediate/junior high schools, and 100 percent

TABLE 7
Topics Taught in AIDS Education

Topics	Elem	JHS	HS	Elem &JHS	JHS &HS	Ele JHS &HS
What is AIDS?						
# schools	185	44	98	46	22	19
% respondents	94.4	97.8	100	100	100	100
How is AIDS transmitted?						
# schools	156	42	98	46	22	19
% respondents	79.6	93.5	100	100	100	100
High risk behavior						
# schools	104	40	98	39	20	17
% respondents	53.1	88.9	100	84.8	90.9	89.5
AIDS fears/myths						
# schools	160	39	98	43	21	18
% respondents	81.6	86.7	100	93.5	95.5	94.7
Prevention behaviors						
# schools	136	39	97	41	22	19
% respondents	69.4	86.7	99.0	89.1	100	100
Peer pressure						
# schools	131	40	88	43	20	16
% respondents	66.8	88.9	89.8	93.5	90.9	84.2
Family/Comm. Help						
# schools	97	32	81	30	19	13
% respondents	49.5	71.1	82.7	65.2	86.4	68.4
Human rights						
# schools	48	26	76	21	15	13
% respondents	24.5	57.8	77.6	45.7	68.2	68.4
Other						
# schools	13	3	14	2	0	2
% respondents	6.6	6.7	14.3	4.3	0.0	10.5

- The most common topics are "What is AIDS?" and "How is AIDS transmitted?"

in high schools), such topics as high-risk behavior, family and community help, and human rights are covered primarily at the junior high and high school levels.

STUDENT BASELINE DATA

Baseline data on AIDS-related knowledge and attitudes of in-school youth were collected by the U.S. Department of Health and Human Services, Center for Disease Control. C.D.C. selected a random sample of students in nine states and four cities. The sample size of the New York City population was 2,813, with a 100 percent school response rate: 90 percent of the student sample was between the ages 15 and 18. B.O.E. also conducted a student pre- and posttest on AIDS knowledge and attitudes for intermediate/junior high school students and high school students. The C.D.C. survey and the B.O.E. survey covered some of the same topics.

The C.D.C. survey found that 70.2 percent of the school population felt they were at risk of AIDS transmission from giving blood; 58.1 percent felt they were at risk from insect bites; 44 percent felt they were at risk from having a blood tests; 38.9 percent felt they were at risk from using public toilets; and 5.2 percent felt they were at risk by simply shaking hands. More than 98 percent knew they were at risk as the result of IV-drug use, and 96.9 percent knew they were at risk from sexual intercourse.

The pre- and posttests for junior high school students, and pretests for high school students administered by OREA covered

some of the same topics with true false statements such as "You can get AIDS by shaking hands with a person who has AIDS"; "You can get AIDS from getting a blood transfusion"; "AIDS is caused by mosquito bites"; and "People cannot become infected with AIDS by donating blood."

The posttest scores for the junior high school students on giving blood, shaking hands and insect bites showed a stronger knowledge base in these areas among the students tested than was shown among the New York City ninth through twelfth graders in the national C.D.C. report (see Table 8).

However, there was not a statistically significant difference between the pretest and the posttest scores of the intermediate/junior high school sample (see Table 9).

TABLE 8

Comparison Between Baseline Data Results of National Survey Conducted by C.D.C. and AIDS Project Surveys

Question	C.D.C.	JHS Posttest
There is a risk factor in shaking hands: % Neg. response	94.8%	95.8%
There is a risk factor in donating blood: % Neg. response	29.8	36.3
There is a risk factor in insect bites: % Neg. response	41.9	64.5

- The junior high school posttest had the higher negative response rate to two of the three questions.

TABLE 9

Intermediate/Junior High School Students:
Assessment of Knowledge and Attitudes about AIDS Before and After AIDS Education

	Number of Cases	Mean	S.D.	Mean Difference
Pretest	261	14.9	2.7	
Posttest	261	15.0	2.9	0.1

- There was no significant difference between the pretest and the posttest scores of the intermediate/junior high school students.

IV. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The 1988-89 goals for the AIDS Education Project were, for the most part, met. The project developed curricula appropriate for the different age levels, and trained an ever-growing population of teachers about AIDS and how to incorporate AIDS education into the classroom. During the first two years of the project, from 1987-89, the number of students reported receiving AIDS education in the public school grew more than a hundredfold from 2,074 to 257,153.*

Compared to last year, more teachers were reached through training sessions, and AIDS education became a part of the curriculum in more grades and more settings. A majority of the participants found the workshops to be very helpful both in reaching students and addressing their personal needs concerning information about AIDS and the H.I.V. infection. The major complaints about the training sessions concerned their physical settings (many were held in lunch rooms, where it was uncomfortable and difficult to hear).

The AIDS Advisory Council met and helped to establish policies for the project. It also acted as a liaison between the general community and those implementing AIDS education into the school system. Stronger ties were established with the community

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*This number was arrived at from the analyses of the 421 principal surveys received out of 946 which were mailed.

through the creation of a parent- education program, and this should prove even more beneficial as the parent training is expanded and reorganized. The establishment of a B.O.E. AIDS Resource Center should also serve to foster community ties by acting as a support system and information center.

The AIDS Education Project continued to work with the outreach United Neighborhood Houses program, reaching youth who would be at risk for H.I.V. infection and in need of education about AIDS. Groups of U.N.H. youth were given surveys on knowledge and behavioral attitudes before and after training. Their knowledge, attitudes, and behavioral intentions were significantly higher after training than before.

RECOMMENDATIONS

Based on the findings of this evaluation and other information contained in the report, the following recommendations are offered:

- The AIDS advisory council should continue to meet and maintain ties between the community and the AIDS Education Project.
- Continue to expand parent programs in AIDS education while at the same time, redefining it so that it is able to meet the needs of the community it serves.
- Continue and expand training for B.O.E. staff, with special emphasis continuing to be put on health program coordinators.
- Develop the AIDS resource center through increased allocation of space and materials, and broaden its scope and reach so it is able to serve as a strong support system for those involved in AIDS education.

- Broaden the base of teachers who have received training in the AIDS curriculum, and offer follow-up possibilities for teachers who feel it would be beneficial to continue their training in this area.

- Conduct an updated B.O.E. staff needs assessment regarding concerns about AIDS education: compare needs assessments of those directly involved in health education with other B.O.E. staff, compare needs assessments of those who have participated in AIDS education training sessions with those who have not. Attempt to shape future training sessions in terms of the needs expressed.

- Continue to collect baseline data on students' knowledge, attitudes and behavioral intentions concerning AIDS. This data should be compared to other comparable tests, such as the one administered by the C.D.C. There should also be posttests for both the high school and junior high school populations to help determine the impact of the AIDS Education Project.

- The AIDS Education project should continue to work with outreach groups such as U.N.H. in an effort to reach adolescents who may be at greater risk for H.I.V. infection.

- Initiate a peer education program for high school students as an additional way to reach adolescents and teach them about AIDS.